Always use correct Personal Protective Equipment

DIRECT TO METAL (DTM)

Contact the Development Team for advice and training on how to incorporate the RALI X Tinters to make DTM

Description

Direct to Metal (DTM) is a 2-pack epoxy urethane pigmented coating formulated for the Marine and Light Industrial markets.

CAUTION: Gloss finishes used on concrete floors are not recommended for wet areas for safety reasons. It is highly recommended that a small test area is performed first to ensure the outcome required.

Products

Product Type:	Epoxy Urethane Pigmented Colour
Colour:	Approximately 400 colours available.
Pot Life:	45 min with DUREPOX Hardener & 400 Slow Reducer at 20°C Faster reducers will shorten pot life.
Induction Time:	>10 Minutes
Density:	0.98-1.00 kg/L. *This is Colour dependant.*
Recommended DFT:	25-35 microns DFT /coat
Theoretical Coverage:	8m²/L @ 40 Microns DFT / spray equipment dependant.

Properties

VOC:	515 g/L
Volume Solids:	43% (non catalysed)
Recoat-ability:	Can be recoated with itself within a 1hr period at 20°C Outside 1hr detail sand and recoat.
Dry Time @ 20°C:	Touch Dry: 1 Hour Handle: 12 Hours (Temp Related)

Substrates

DTM can be applied directly over suitably prepared:

- G.R.P. (Fibreglass)
- Carbon Fibre.
- Steel.
- Galvanised Steel.
- Aluminium / after cleaning pre-treatment and etch priming.
- Veneer coated ply wood & most wood finishes.
- Concrete.

Surface Preparati

All substrates' should be clean, dry and free from any dirt oil or grease. The use of solvent degreasers is highly recommended.

G.R.P (Fibreglass) & Carbon Fibre:

Strongly advise testing a small area for coating success due to the amount of variables in fibreglass & carbon fibre resins. Wash with warm detergent solution e.g. C-Power solution.

Surface

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Preparation (cont)

Degrease with Wax & Grease Remover using the wipe on wipe off method. Abrade with dry sand paper finishing no coarser than 400 dry using dustless dry sanding machine.

Use Wax & Grease Remover using the wipe on wipe off method. Detail blow clean using tack cloth for final wipe down ready for clear coating. Apply at least two full wet coats; more coats can be applied if needed.

Steel:
For best results all steel surfaces should be **free from any millscale.** This can be done by two suggested methods.

1. Light abrasive blasting with Garnet Grade C with a profile no greater than 30 microns followed by a light sand to reduce the peeks of the blast profile transferring through into the topcoat.
2. Removal milscale via power tools to bright white steel look.

After the removal of milscale you can then directly apply DTM to the substrate. Two to three coats (colour dependant) is all that is needed.
Note: Like most DTM products on ferrous metals if maximum anti corrosive properties are required it is advisable to use an anti corrosive etch primer and or primer surfacer.

Aluminium / After cleaning pre-treatment and etch priming:
Aluminium should be detail solvent cleaned with RALI Wax & Grease remover to remove all traces of dirt and oils. Work in manageable areas using the wipe on wipe off method changing clean cloths regularly and also wearing gloves. The use of RALI Truck Clean also works well. After cleaning two methods are available for providing excellent adhesion to aluminium when applying DTM as a topcoat.

Abrade the Aluminium for a mechanical key followed by a further solvent clean then treat the area with Hydrafos, rinse off followed by complete drying of the surface.

1. The use of Henkel Alodine 1200 as per Henkel TDS followed by rinsing off with DI water. Alodine 1200R as a pre-treatment and adhesion promoter also works very well.
2. The use of RAPC 81A Etch Primer as per TDS sheet.

To lightly grit blast with Garnett Grade C is also ideal for direct etch priming.
Allow to dry for the recommended time and topcoat with DTM.

Concrete:
Strongly advise testing a small area for coating success due to the amount of variables in concrete and release agents for tilt slab walls & floors. Acid etch or abrasive blast new or aged concrete. Ensure it is dry and free from dirt, grease and oil deposits. DTM can be applied directly to suitably prepared concrete. The use of Test Method D4263 is highly recommended for checking if moisture is still present in the concrete.

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Surface Preparation (cont)

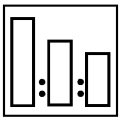
Note / When using a roller for application the use of PAL Contract Series Roller 5 to 10mm Mohair Blend. These rollers work best to help reduce any bubbles in the product or alternatively lay off with a soft brush or broom. Use DTM colour at 4:1, add 2-3% Reducer as this will assist with pot life and reduce the bubble effect if using a roller. The concrete porosity determines your approach as you need good DFT builds of 200 microns from 2 coats.

Veneer Coated Plywood & General Timbers:
Strongly advise testing a small area for coating success due to the amount of variables in veneers & timbers.
Ensure substrate is dirt, dust & grease free. Depending on the particular wood substrate most can be coated on day one, left for overnight drying in warm temperatures (20°C at least) 400 grit detail dry sand and recoated the following day. This will result in a full gloss durable long lasting finish.

REGARDLESS OF SUBSTRATE IT IS HIGHLY RECOMMENDED TO PERFORM A TEST SAMPLE FIRST.

Always strain or filter products before using them

Directions For Use



Mixing Ratio: 4 parts DTM colour
(Volume) 1 part Durepox Hardener

Thinning: From 20 to 40% 400, 909 Fast, 400 Slow Reducer
Option to use 62C accelerator see notes below

Remarks: Do not use activated material beyond pot life time or by reducing it further to get the viscosity down again. This procedure results in poor flow and adhesion failures.
Large surface areas in conjunction with temperatures +20°C it is highly recommended to use Slow Reducer. Plan the job required and seek advice if unsure.

Note

Lower temperatures will slow drying; adding of up to 5% by volume of RALI 62C Accelerator to a mixed colour and hardener will approximately halve curing and pot life times. Reduce the amount to 1-2% of RAPC 62C Accelerator when drying with IR lamps. Misuse of 62C Accelerator can cause loss of adhesion and poor flow-out. The use of RALI 909 Fast Reducer is highly recommended for small components and cooler temperatures. High temperatures can increase drying time and reduce pot life; the use of 400 Slow Reducer can help in these circumstances. Always be mindful of recoat times in warm conditions as in over 25 deg C.

Satin Finishes:

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It is possible to reduce the gloss of DTM to a satin finish of 35% gloss with the addition of 2% by weight of AF41 matting powder (Available to be shaken in from RALI Mt Wellington). Highly recommend a test sample to be done first, judge gloss level after 48hr for an accurate indication of gloss level.

Spray Equipment:

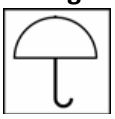
Compliant / Conventional suction and gravity feed guns.
Tip Size: 1.5 - 2 mm
Spray pressure: 275-380KPA (40-55 PSI)
Number of coats: 2 coats (5-10 minutes flash between coats)
Air less / Air assisted airless & electrostatic follow equipment manufacturer's recommendations.
Although DTM can be applied without thinning, best results are obtained by thinning up to 20% by volume with 400, 909 Fast or 400 Slow Reducer. This allows for different gun set-ups and techniques, and assists flow and levelling.

Point to Note: If you are using electrostatic spraying equipment spray a test sample with power on and power off as some electrostatic equipment can provide varying gloss levels over a given job. You may have to use the Power Off method for the last coat to achieve a consistent satin gloss level.

Health & Safety

For detailed information refer to Safety Data Sheet (SDS). Mixed product contains isocyanates. Inhalation of vapours or dust from sanding may cause respiratory sensitisation. Splashes to eyes will cause irritation. Contact with skin may cause irritation. Applicators should use protective clothing and respiratory equipment. Product is flammable, use and store away from heat and ignition sources

Transport & Storage



Sizes:	4L
Dangerous Goods:	3A
UN:	1263
Hazchem:	3[Y]
Packing Group:	III
Shipment name:	PAINT Flammable Liquid
Flash point:	27°C